

Space Bio Manufacturing

3D printing living tissue in space



In space:

- Tissue printing
- Bioink development
- Cell and tissue biology studies
- New material printing and evaluation

Techshot 3D Tissue Printer for microgravity

- 4 print heads
- Print volume 100 mm x 100 mm x 50 mm
- Gel-based bioinks
- Viscosity range: 0.001-1000 Pa·s (1-1,000,000 CPS)
- Line widths: from 20 μm to Luer bore needle-size
- Thermoplastics (pellets or 1.75 mm filament)
- Demonstration print of a microvascularized heart tissue patch aboard ISS anticipated in 2018



Technology demonstration in microgravity aboard parabolic-flight aircraft